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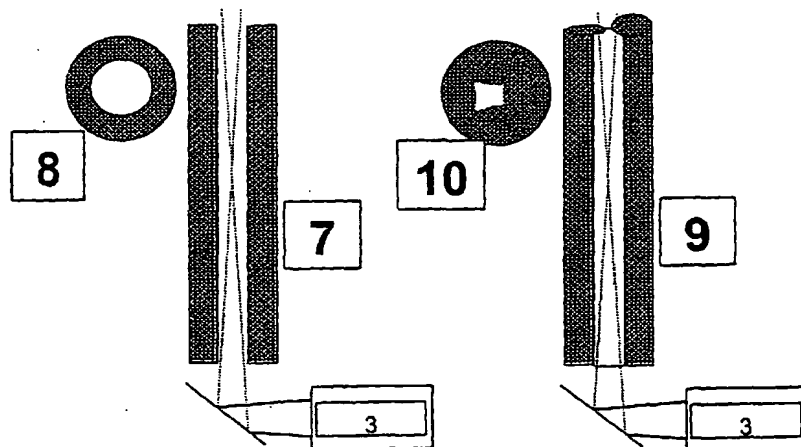
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[Continued on next page]

(54) Title: A PROCESS FOR KEEPING A TUYERE PASSING THROUGH A METALLURGICAL VESSEL FREE OF A SKULL



Light path of 3  
unobstructed

$$\begin{aligned} I_{(1)} &\rightarrow T_{(1)} \\ I_{(2)} &\rightarrow T_{(2)} \\ I_{(Q)} &\rightarrow T_{(Q)} \\ T_{(1)} &= T_{(2)} = T_{(Q)} \end{aligned}$$

Light path of 3  
obstructed

$$\begin{aligned} I_{(1)} &\rightarrow T_{(1)} \\ I_{(2)} &\rightarrow T_{(2)} \\ I_{(Q)} &\rightarrow T_{(Q)} \\ T_{(1)} &= T_{(2)} \neq T_{(Q)} \end{aligned}$$

(57) Abstract: The present invention relates to a process for keeping a tuyere passing through a metallurgical vessel free of a skull by intermittently passing an oxygen-containing gas through the tuyere to dissolve the skull, wherein it is determined that an interval for passing said oxygen-containing gas through the tuyere needs to be started by detecting electromagnetic radiation emanating from a spot in the interior of the melt by means of a dual wavelength pyrometer and comparing the intensity of the pyrometer signals with the ratio of the pyrometer signals, and initiating said interval for passing said oxygen-containing gas through the tuyere, upon the condition that the combined intensity of the signals falls below a predetermined threshold value and that the ratio of the signals remains substantially constant.

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